

**Mathematics of Coding and Cryptography**  
**Worksheet 8**

Use the Rijndael algorithm up through the end of round 1 to encrypt the message

10011010 00101101 00011010 11111110 01000101 00100001 00001101 10101011  
01001010 11010010 11010010 00101010 11101101 11101111 00110101 01011011

using the key

11010010 11011101 00101001 10100100 11011011 11110111 01101111 00101001  
10101010 01111101 01010000 10111011 00000010 01101011 00001000 11111111